Required and optional software for the shortcourse

- https://julialang.org/downloads/
  - Allow to install and use MAGEMinApp and MAGEMin_C

- Visual Studio Code – Code editor https://code.visualstudio.com/
  - Excellent programming environment for any language
  - Perfect to program MAGEMin_C.jl scripts!

- https://inkscape.org/fr/
  - Allow to open MAGEMinApp figure vector format (svg)

Free/Open source

- https://www.adobe.com/products/illustrator.html
  - Allow to open MAGEMinApp figure vector format (svg)
  - Vectors need clean-up!

Licensed

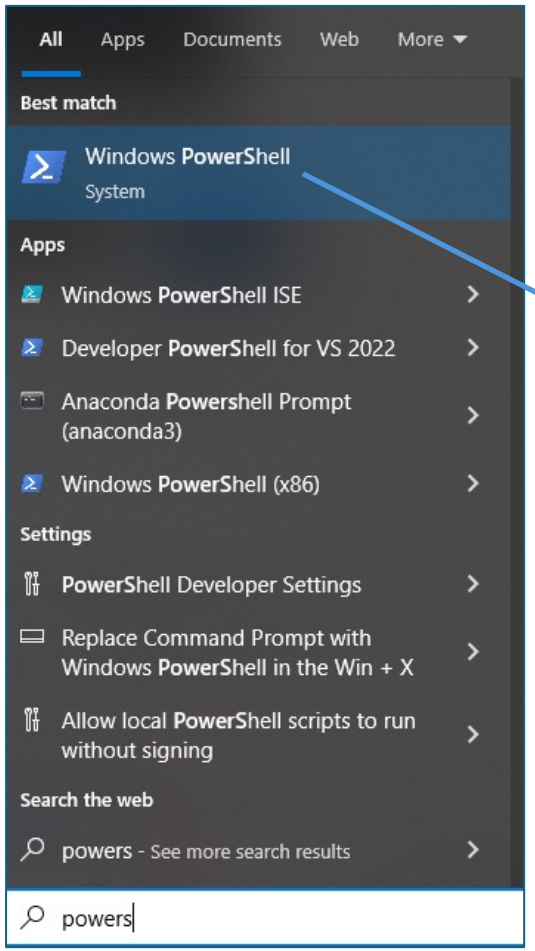
Julia installation

Windows, Mac and Linux

Julia installation – Launch terminal

Windows

Powershell

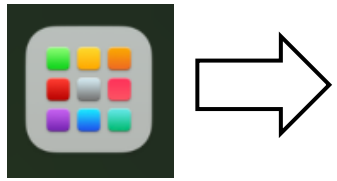


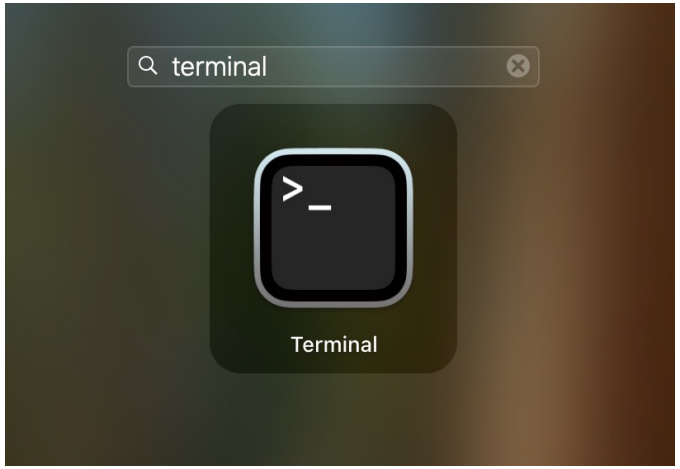
→ Right click
→ Run as administrator

Mac

Terminal

Launchpad





Julia installation - https://julialang.org/install/

Windows

Install juliaup from the Microsoft Store by running this in the command prompt:

```
winget install --name Julia --id 9NJNWW8PVKMN -e -s msstore
```

PowerShell

If Winget is not installed/activated, first paste the following command in the PowerShell:

```
Add-AppxPackage -RegisterByFamilyName -MainPackage
Microsoft.DesktopAppInstaller_8wekyb3d8bbwe
```

Linux/Mac

Install juliaup by running this in your terminal:

```
curl -fsSL https://install.julialang.org | sh
```

Terminal

Once installed close and relaunch the PowerShell/Terminal
(this updates user's environment)

MAGEMinApp & MAGEMin_C installation

Windows

Install MAGEMinApp

Windows

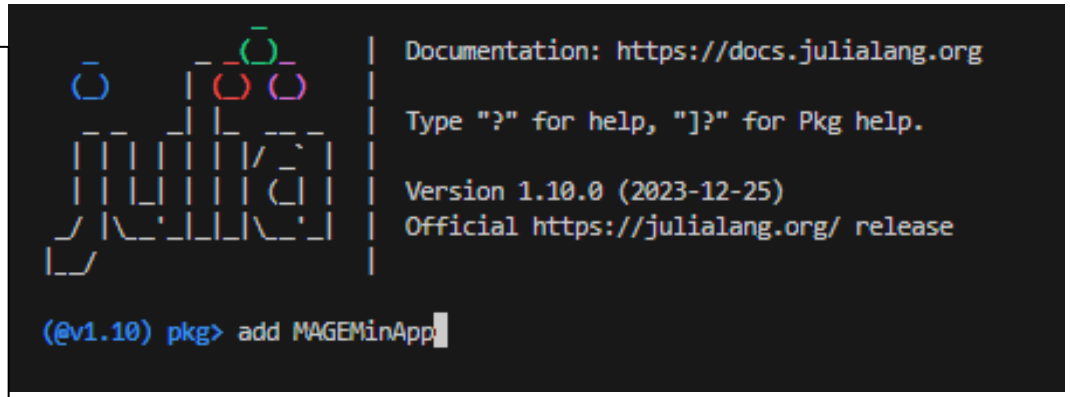
Powershell

- Open a new terminal (**PowerShell**)

Install MAGEMinApp

```
$env:JULIA_NUM_THREADS=4 # Sets the number of “workers”
julia                    # launches Julia in parallel

julia> ]                 # opens the package manager
pkg> add MAGEMinApp      # MAGEMin_C
```



- In the terminal type **]** this will open the package manager
- Then type **add MAGEMinApp** this will download and install MAGEMinApp
- Once installed, quite the package manager by typing BACKSPACE/delete key

MAGEMinApp & MAGEMin_C installation

Mac and Linux

Install MAGEMinApp

Mac

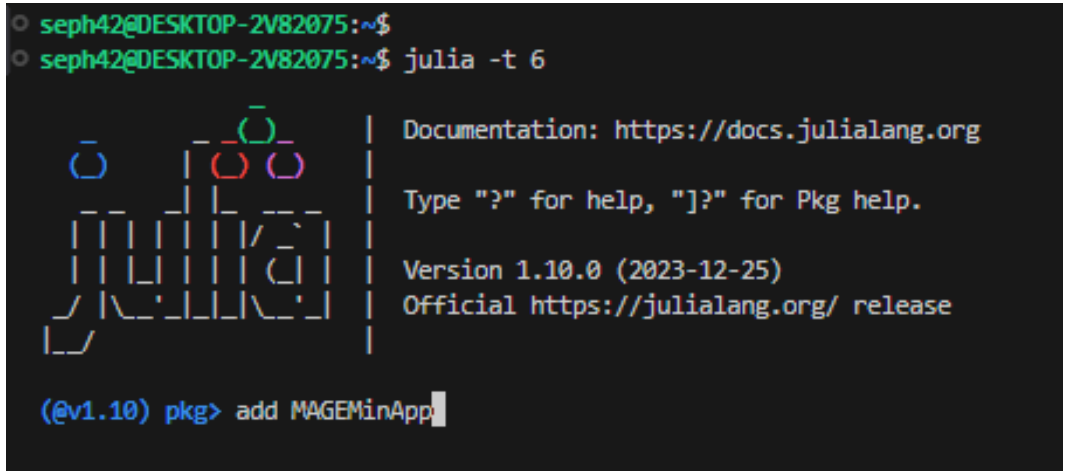
- Open a new terminal (vscode for those who use it, or **terminal**)

Terminal

Install MAGEMinApp

```
julia -t 6                    # launches Julia in parallel

julia> ]                      # opens the package manager
pkg> add MAGEMinApp           # MAGEMin_C
```



- In the terminal type **]** this will open the package manager
- Then type **add MAGEMinApp** this will download and install MAGEMinApp
- Once installed, quite the package manager by typing BACKSPACE/delete key

MAGEMinApp & MAGEMin_C launch app (GUI)

Windows

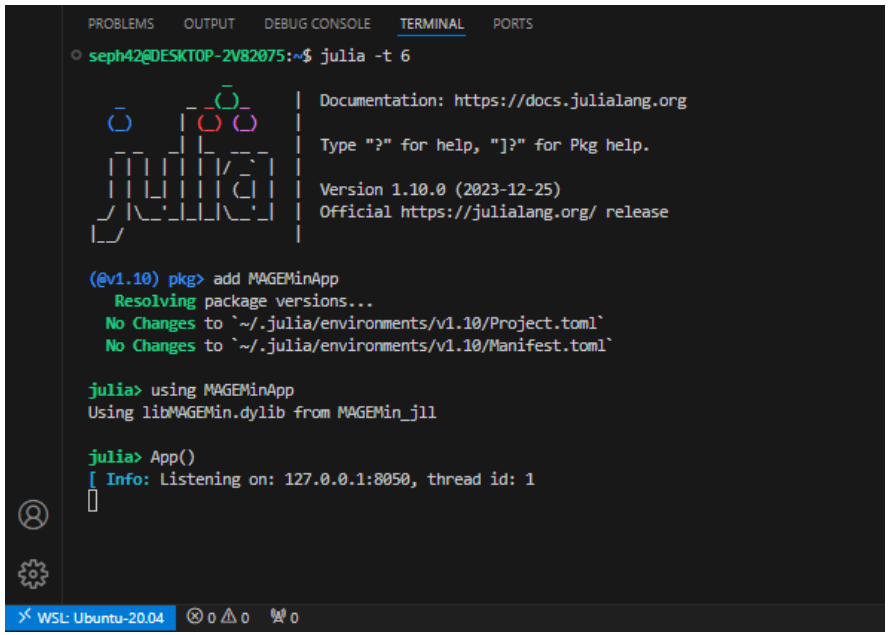
Mac and Linux

Launch MAGEMinApp

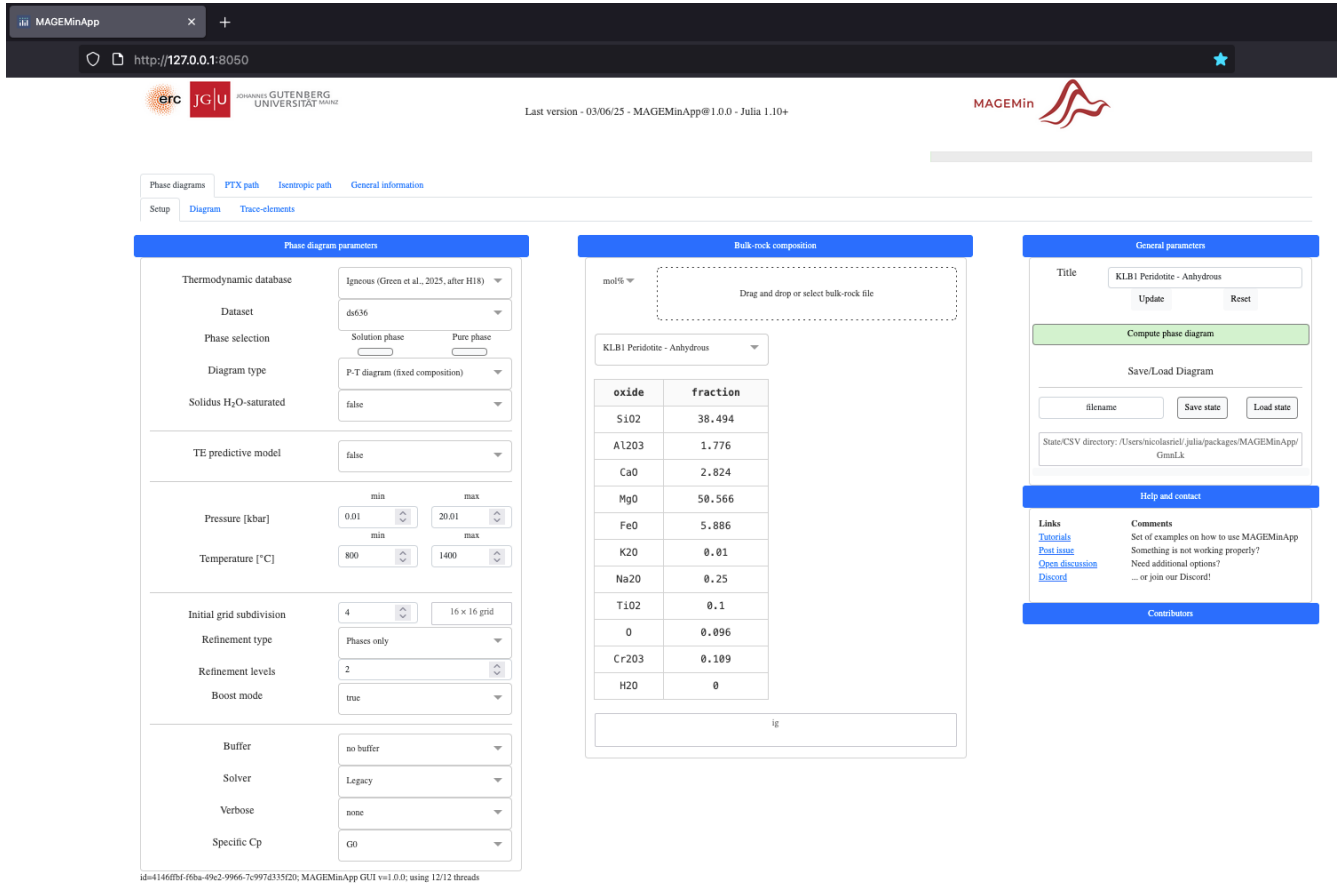
Load MAGEMinApp

```
julia> using MAGEMinApp     # load MAGEMinApp
julia> App()
```

- The following text will be displayed in the terminal:



- Copy and paste the address in your web-browser:



MAGEMin_C, the julia interface: installation

https://github.com/ComputationalThermodynamics/MAGEMin_C.jl

Install MAGEMin_C

```
julia> ]                        # opens the package manager
pkg> add MAGEMin_C              # MAGEMin_C
```

Load MAGEMin_C

```
julia> using MAGEMin_C      # load MAGEMin_C
```